

Asphalt General FESOP Application

Source Name:
Source Id:
Source Location:
Mailing Address:
What is the sources maximum capacity in tons of asphalt produced per hour? _____

Y N

Y	N	Is this source a portable source?
Y	N	Is this a new source? If yes, the source cannot receive this operating permit until the source has applied for and received construction approval.
Y	N	Has this source previously been issued an operating permit?
Y	N	Does this source have a batch mix dryer?
Y	N	Does this source have a drum mix dryer?
Y	N	Does this source have a dryer/ mixer burner?
Y	N	Is this source's dryer mixer exhaust controlled by a baghouse?
Y	N	Has the source submitted a FESOP renewal application? If yes, please indicate the date it was submitted _____ application # _____

In order to obtain the General Asphalt FESOP, the source must agree to voluntarily comply with all the terms of the General Asphalt FESOP. The major terms and conditions are set out below. Please check beside each limit or requirement that the source can and will meet.

Production Limit	
Y	The asphalt plant will not exceed a total production of 600,000 tons of asphalt mix per twelve (12) month consecutive period.
Burner Fuel Limit	
Y	The asphalt plant will not use more than 180 million cubic feet of natural gas per twelve (12) month period rolled on a monthly basis.
Y	All distillate (#2) combusted in the dryer and hot oil heaters will have a sulfur content less than or equal to 0.50 percent and will not exceed 1,200,000 gallons per twelve (12) month period rolled on a monthly basis.
Y	The asphalt plant will not use more than 1,800,000 gallons of propane/butane per twelve (12) month period rolled on a monthly basis.

	<p>All waste oils combusted in the dryer and hot oil heaters will have a sulfur content less than or equal to 1 percent and will not exceed 600,000 gallons per twelve (12) month period rolled on a monthly basis.</p>
	<p>When combusting more than one fuel per twelve (12) month period rolled on a monthly basis in the aggregate dryer/mixer burners and all other combustion equipment, fuel allotments shall be adjusted according to the following formula and limit:</p> <p style="text-align: center;"><u>Nitrogen oxide emission calculation and limit</u></p> $N = \frac{G(E_G) + O(E_O) + P(E_P) + B(E_B) + W(E_W) + D(E_D)}{2,000 \text{ lbs/ton}}$ <p>where: N=tons of nitrogen oxide emissions for a 12 month consecutive period</p> <p><u>Fuel usage</u> G=cubic feet of natural gas used for the last 12 months O=gallons of oil used for last 12 months with less than or equal to 0.5% sulfur content P=gallons of propane used for the last 12 months B=gallons of butane used for the last 12 months W=gallons waste oils used for the last 12 months with less than or equal to 1% sulfur content D=gallons of distillate oil used for the last 12 months for electric generation units</p> <p><u>Emission Factors for Nitrogen Oxide</u> E_G= 280 lb/million cubic feet of natural gas E_O=24 pounds/1000 gallons of oil E_P=19 pounds/1000 gallons of propane E_B=21 pounds/1000 gallons of butane E_W=19 pounds/1000 gallons of waste oil E_D=616 pounds/1000 gallons of distillate oil</p> <p>This total must be less than 50 tons of nitrogen oxide for every twelve (12) month consecutive period.</p>

	<p>When combusting more than one fuel per twelve (12) month period rolled on a monthly basis in the aggregate dryer/mixer burners and all other combustion equipment, fuel allotments shall be adjusted according to the following formula and limit:</p> <p><u>Sulfur dioxide emission calculation and limit</u></p> $S = \frac{G(E_G) + O(E_O) + (P+B)(E_P) + W(E_W) + D(E_D)}{2,000 \text{ lbs/ton}}$ <p>where: S=tons of sulfur dioxide emissions for 12 month consecutive period <u>Fuel Usage</u> G=cubic feet of natural gas used in last 12 months O=gallons of oil used in last 12 months with less than or equal to 0.5% sulfur content P=gallons of propane used in the last 12 months B=gallons of butane used in the last 12 months W=gallons of waste oil used in the last 12 months less than or equal to 1% sulfur D=gallons of distillate oil used in the last 12 months for electric generation units</p> <p><u>Emission Factors for Sulfur dioxide</u> E_G= 0.6 pounds/million cubic feet of natural gas E_O=71 pounds/1000 gallons of oil E_P= 0.02 pounds/1000 gallons of propane/butane E_W=147 pounds /1000 gallons of waste oil E_D=41 pounds/1000 gallons of distillate oil</p> <p>This total must be less than 50 tons of sulfur dioxide for every twelve (12) month consecutive period.</p>
Particulate Matter Limits	
	Emissions of particulate matter less than 10 microns in diameter (PM-10) from the dryer/mixer process exhaust system will not exceed 0.13 pounds of PM-10 per ton of asphalt mix, including both filterable and condensibles fractions.
	Drum Dryer/Burner Process Stack particulate emissions in the baghouse gas stream, excluding water and steam vapors, will not exceed 0.03 grains per dry standard cubic foot.
	The visible emissions from the hot mix asphalt facility will not exceed twenty (20%) percent opacity.
	This plant will not locate in any area classified as a Severe Nonattainment Area for any National Ambient Air Quality Standard to ensure that the threshold limits for the area are not exceeded.
	A fugitive dust plan has been attached to this application.
VOC Limits	
	The VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant will be limited to 50 tons per twelve (12) consecutive month period.
	Cutback asphalt rapid cure liquid binder usage will not exceed 50 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.

	Cutback asphalt medium cure liquid binder usage will not exceed 68 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.												
	Cutback asphalt slow cure liquid binder usage will not exceed 190 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.												
	Emulsified asphalt with solvent liquid binder usage will not exceed 102 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.												
	Other asphalt with solvent liquid binder will not exceed 1,900 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.												
	<p>When more than one type of binder is used per twelve (12) month consecutive period rolled on a monthly basis, the VOC solvent allotments shall be adjusted using the following adjustment ratios:</p> <table> <tr> <td><u>Type of binder</u></td><td><u>adjustment ratio</u></td></tr> <tr> <td>cutback asphalt rapid cure</td><td>1</td></tr> <tr> <td>cutback asphalt medium cure</td><td>1.36</td></tr> <tr> <td>cutback asphalt slow cure</td><td>3.8</td></tr> <tr> <td>emulsified asphalt</td><td>2.04</td></tr> <tr> <td>other asphalt</td><td>38</td></tr> </table>	<u>Type of binder</u>	<u>adjustment ratio</u>	cutback asphalt rapid cure	1	cutback asphalt medium cure	1.36	cutback asphalt slow cure	3.8	emulsified asphalt	2.04	other asphalt	38
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	Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel must comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery)												
Testing Requirements													
	The Permittee shall perform PM and PM-10 testing. New asphalt plants will be stack tested within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up.												
	A stack test for existing plant will be performed at least once every five (5) years. The five (5) year period shall be from the date of last valid compliance demonstration test.												
	Existing plants that have not conducted a stack test will submit a test protocol no later than 180 day after issuance this permit.												
Monitoring Requirements													
	The baghouse for PM control will be in operation at all times when the dryer/burner process is in operation.												
	Visible emission notations of from the dryer/burner process stack exhaust will be performed by a trained employee twice in the morning and twice in the afternoon and recorded. The readings shall be separated by at least 1 hour.												
	The inlet temperature to the baghouse will be maintained within a range of 200-400 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags.												
	Daily visible emission notations of the conveyers, material transfer points, aggregate storage piles, and unpaved roads will be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal.												

CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

☐ I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.

Name (*typed*)

Title

Signature

Date